

**CWA COMPLIANCE EVALUATION INSPECTION REPORT
U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

Purpose: Pretreatment Industrial User (IU) Inspection

Facility: Bimba Manufacturing Company
25150 S. Governors Hwy.
University Park, IL 60484

Date of Inspection: June 20, 2023

EPA Representatives: Newton Ellens, Pretreatment Program Manager, 312-353-5562
E-Mail Address: ellens.newton@epa.gov
Jennifer Bush, Environmental Scientist, 312-886-0879
E-Mail Address: bush.jennifer@epa.gov

Facility Representatives: Eric Brooks, HSE Manager, 708-534-8544

Report Prepared by: Newton Ellens, Pretreatment Program Manager, 312-353-5562
E-Mail Address: ellens.newton@epa.gov

Inspector Signature: Ellens, Newton
 Digitally signed by Ellens, Newton
Date: 2023.07.25 15:53:09 -05'00'

Report Date: _____

Approver Name and Title: Molly Smith, Section Chief, Water Enforcement and Compliance Assurance Branch

Approver Signature: MOLLY SMITH
 Digitally signed by MOLLY SMITH
Date: 2023.08.01 09:57:25 -05'00'

Approval Date: _____

Purpose of Inspection

The purpose of the inspection was to describe, evaluate, and document compliance with the Clean Water Act (CWA) and associated pretreatment regulations with respect to the Bimba Manufacturing Company (Bimba), located at 25150 S. Governors Hwy., University Park, Illinois.

Background

As stated above, the Bimba facility is located in University Park, Illinois. The Village of University Park does not run a Federally approved pretreatment program. In addition, the Illinois Environmental Protection Agency (IEPA) does not run an approved State pretreatment program. Therefore, the U.S. Environmental Protection Agency is both the Approval Authority and the Control Authority for the Bimba facility, as defined in 40 C.F.R. § 403.3(c) and (f).

Bimba submits periodic monitoring reports to the U.S. Environmental Protection Agency, Region 5 office.

Opening Interview

Mr. Ellens and Ms. Bush arrived at the Bimba facility on June 20, 2023, at 9:40 a.m. At 10:05 a.m., Mr. Brooks greeted them: Mr. Ellens and Ms. Bush presented their credentials to Mr. Brooks.

Mr. Ellens and Ms. Bush sat down with Mr. Brooks for an opening conference. During the conference, Mr. Brooks stated the following:

- General plant information:
 - Bimba manufactures air-driven cylinders and actuators.
 - The company has 293 employees.
 - Currently, the company operates three shifts, Monday through Friday. However, Bimba plans to eliminate the third shift on June 25, 2023.
- Manufacturing process:
 - The company purchases parts for manufacturing. Parts can include stainless steel, aluminum extensions, and various machining supplies.
 - Some parts are finished (not manufactured) at the facility.
 - Bimba ships and receives parts at a south receiving dock, via truck. Some parts are shipped by weight; other parts are shipped by length.
 - As part of the manufacturing process, Bimba coats some metal parts with black oxide (on a “Blackening” line). Bimba typically operates its Blackening line twice per week, for a total of four hours.
 - Generally, Bimba’s production has been steady, with some slowing in the last month or two. Bimba’s Blackening process rates, however, has remained steady.
 - Bimba does not have shut down periods or seasonal production schedules.
 - Finished products are shipped out via truck.
- Waste generation

- Bimba uses 80,000 gallons of raw water per month.
- Under Bimba's IEPA permit, Bimba can discharge 120 gallons of process wastewater per day (rinse water from its Blackening line). However, Bimba actually discharges an estimated 120 gallons of process wastewater per week.
- A floor drain at the Bimba facility receives pH-adjusted process wastewater. The water then combines with sanitary inputs, then discharges to the sewer.
- Some wastewater is hauled away for disposal.
 - Wastewater from some process tanks are dumped into a floor sump. Mopping water and some parts wash water are sources of this wastewater. The sump is about one and a half feet deep and lined with stainless steel. Illinois Resource Group (IRG) hauls wastewater from the floor sump. IRG hauls about 600 gallons per month.
 - Crystal Clean (Heritage) comes to the Bimba facility weekly to clean process tanks and hauls the wastewater generated.
- Bimba discharges of wastewater in batches.
- Bimba has filed Toxic Release Inventory (TRI) forms for releases of nickel, chromium, lead, and diisocyanates. Diisocyanates are chemicals used in product packaging.
- Pretreatment
 - Bimba discharges its process wastewater in batches.
 - Bimba's process wastewater has an alkaline quality; the pH is 12. The company uses pH adjustment to treat it.
 - The pretreatment process does not generate sludge.
- Wastewater sample analysis and reporting
 - No dilution streams (e.g., sanitary) combine with process wastewater prior to sampling.
 - Bimba collects wastewater samples for analysis biannually. The company collects samples for metals and total toxic organics (TTO). Bimba does not test its wastewater for pH.
 - Most of Bimba's samples are grab samples.
 - Bimba uses a laboratory consultant (Eurofins) to test its wastewater discharge. For sampling events, Eurofins provides Bimba staff with sampling equipment, including an autosampler. Bimba staff then collect wastewater samples, fill out chain of custody (COC) forms, then drive the samples to Eurofins for analysis.
 - Bimba sends electronic reports to EPA.
 - Dave Zickuhr, a Bimba employee, is responsible for operating the company's pretreatment equipment. Bimba has two Class K operators within their staff to maintain pretreatment equipment.

Plant walkthrough

Mr. Brooks showed EPA staff the following during the plant walkthrough:

- Blackening Line: The Blackening Line was not operating at the time of the inspection. Metal parts are sequentially dipped in the following tanks:
 - Tank 1: Cleaning

- Tank 2: Rinse
- Tank 3: Pretreatment tank to prepare the surface (Oxyprime)
- Tank 4: Rinse
- Tank 5: Blackening
 - The following chemicals and product is in the Blackening tank: sodium hydroxide, sodium nitrite, and TruTemp XL.
- Tank 6: Rinse
- Tank 7: Aqueous cleaner—a rust inhibitor (Perkleen 1275-H)
- pH Adjustment Tank
 - The pH adjustment tank is beside the Blackening Line. It is a 560-L tank. For wastewater sampling, a tube from an auto sampler is inserted into the top of the tank. No sampling was completed at the time of the inspection.
- Waste Area
 - Bimba staff dispose of floor scrubber water and mop water in a sump. Staff then pump water from the sump into one of three 330-gallon totes.
 - IRG collects wastewater from these totes.
- Aqueous Parts Cleaners
 - There are several aqueous parts cleaners in the facility. These cleaners collect fluid from different metal working operations. Crystal Clean hauls spent fluid for disposal.

Records Review

EPA staff reviewed a sample analysis report, for samples collected on November 9, 2022. The associated COC form:

- Did not indicate whether samples were grab or composite samples, and
- Indicated that Eurofins was the sampler.

Closing Conference

For our closing conference, we made the following preliminary observations:

- For periodic reporting, Bimba typically sends a fraction of its sample analysis report. EPA requested Bimba to send complete sample analysis reports from now on.
- Chain of custody reports (for samples collected on November 9, 2022) do not state whether samples are grab samples or composite samples.
- A chain of custody report (for samples collected on November 9, 2022) does not show who had custody of a sample from November 10, 2022, at 8:00 p.m., to November 11, 2022, at 9:45 a.m.

We asked when the Blackening Line was constructed. Mr. Brooks spoke with Brad Saxma. Mr. Saxma is a Class K operator at Bimba. Brad stated that the Blackening Line started in 1995.

Mr. Brooks provided EPA staff with a sample analysis report (for samples collected on November 9, 2022): November 23, 2022 Eurofins Chicago Analytical Report—Job Number 500-225143-1.

We left the facility at 11:50 a.m. CDT.

Post-inspection activities

Mr. Brooks sent the following emails to EPA:

1. Reports and Manifests, dated June 20, 2023:
 - a. Heritage—Crystal Clean, Bill of Lading (Work Order #00-00N0KM7)
 - b. Illinois Recovery Group, Waste Manifest Report (Work Order #80775)
 - c. Illinois Recovery Group, Uniform Hazardous Waste Manifest Report (Manifest Tracking Number #024592848 JJK)
 - d. 2022 Reports
 - i. June 8, 2022, letters from Colin Rusche (Bimba Manufacturing) to:
 1. Craig Blanchette (Aqua Illinois, Inc.)
 2. Illinois Environmental Protection Agency, Division of Water Pollution Control (Springfield, Illinois)
 3. Illinois Environmental Protection Agency, Division of Water Pollution Control (Des Plaines, Illinois)
 4. U.S. Environmental Protection Agency, Water Enforcement and Compliance Assurance Branch
 - ii. May 25, 2022, Eurofins Chicago Analytical Report (Laboratory Job ID: 500-21636-1)
 - e. 2021 Reports
 - i. June 10, 2021, letters (for the January to June 2021 reporting period) from Charles Churchill to:
 1. Craig Blanchette (Aqua Illinois, Inc.)
 2. Illinois Environmental Protection Agency, Division of Water Pollution Control (Springfield, Illinois)
 3. Illinois Environmental Protection Agency, Division of Water Pollution Control (Des Plaines, Illinois)
 4. U.S. Environmental Protection Agency, Water Enforcement and Compliance Assurance Branch
 - ii. June 10, 2021, letters (for the June to December 2021 reporting period) from Charles Churchill to:
 1. Craig Blanchette (Aqua Illinois, Inc.)
 2. Illinois Environmental Protection Agency, Division of Water Pollution Control (Springfield, Illinois)
 3. Illinois Environmental Protection Agency, Division of Water Pollution Control (Des Plaines, Illinois)
 4. U.S. Environmental Protection Agency, Water Enforcement and Compliance Assurance Branch
 - iii. January 22, 2021, Eurofins Chicago Analytical Report (Laboratory Job ID: 500-193531-1)

- iv. May 27, 2021, Eurofins Chicago Analytical Report (Laboratory Job ID: 500-199029-1)
- f. 2020 Reports
 - i. Eurofins Test America, Chicago—Chain of Custody Record (Job #500-193531)
 - ii. June 19, 2020, Eurofins Test America, Chicago Analytical Report (Laboratory Job ID: 500-183127-1)
 - iii. Sample Login Acknowledgement (Job 500-193531-1)
 - iv. Sample Login Analytes/Limits (Job 500-193531-1)

Attachments

- A. Photos taken during U.S. Environmental Protection Agency inspection of Bimba Manufacturing (June 20, 2023)